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NATIONAL COMMUNICATIONS SYSTEM
OFFICE OF THE MANAGER
701 SOUTH COURTHOUSE ROAD
ARLINGTON, VIRGINIA 22204-2198

ORIGINAL

IN REPLY
REFER TO:

February 13, 2002

Magalie Roman Salas
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

RE: **Docket WB 01-333** (VoiceStream Waiver) Revised *ex parte* material

Dear Ms. Salas,

On February 6, 2002, the National Communications System (NCS) and VoiceStream Wireless made *ex parte* presentations to Bryan Tramont, Paul Margie, and Monica Desai of the Commissioners' staffs. The NCS handed out materials and noted that revisions thereto would be necessary. Those revisions have been made and distributed in accordance with the attached memorandum. A copy of the revised material is enclosed herewith for filing.

If there are any questions regarding this matter, please call me at (703) 607-6092.

Paul R. Schwedler

MEMORANDUM

TO: Bryan Tramont
Paul Margie
Monica Desai

FROM: Paul Schwedler, National Communications System

SUBJECT: **Docket WB 01-333**, VoiceStream Request for Waiver, Priority Access, NCS revised *ex parte* material

Date: 13 February 2002

1. At the *ex parte* meetings held with each of you on February 6, 2002, the National Communications System (NCS) provided a briefing book. It was stated that page 9 of the book would be revised and replaced. A new book has been prepared. It contains a new page 9 as well as a slightly revised format on other pages for presenting other already-provided information. These new books were provided to members of the Wireless Bureau who participated in an *ex parte* presentation on February 11, 2001.

2. Please contact me if there are any questions.

Paul Schwedler
NCS Counsel
(703) 607-6092

Copy (w/encl): Bill Harding, General Dynamics
Michael Altschul, CTIA

Copy (w/o encl): Bob Calaff, VoiceStream

CTIA

Impact of Wireless Priority Services

Independent Analysis by:

Paul A Christoforou, on behalf of CTIA

David R. Smith, PhD, George Washington University, SAIC

Joseph E. Wilkes, PhD, PE, Telcordia Technologies

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Purpose of Study

- To provide an Independent Examination of the issues
  - The effect on consumer blocking by offering Wireless Priority Service
  - The density of Wireless Priority users supported in an area
- To provide an independent determination of the Grade of Service offered to Wireless Priority users
- Analysis conducted by three consultants working as a team
  - Paul A Christoforou, on behalf of CTIA
  - David R. Smith, PhD, George Washington University, SAIC
  - Joseph E. Wilkes, PhD, PE, Telcordia Technologies

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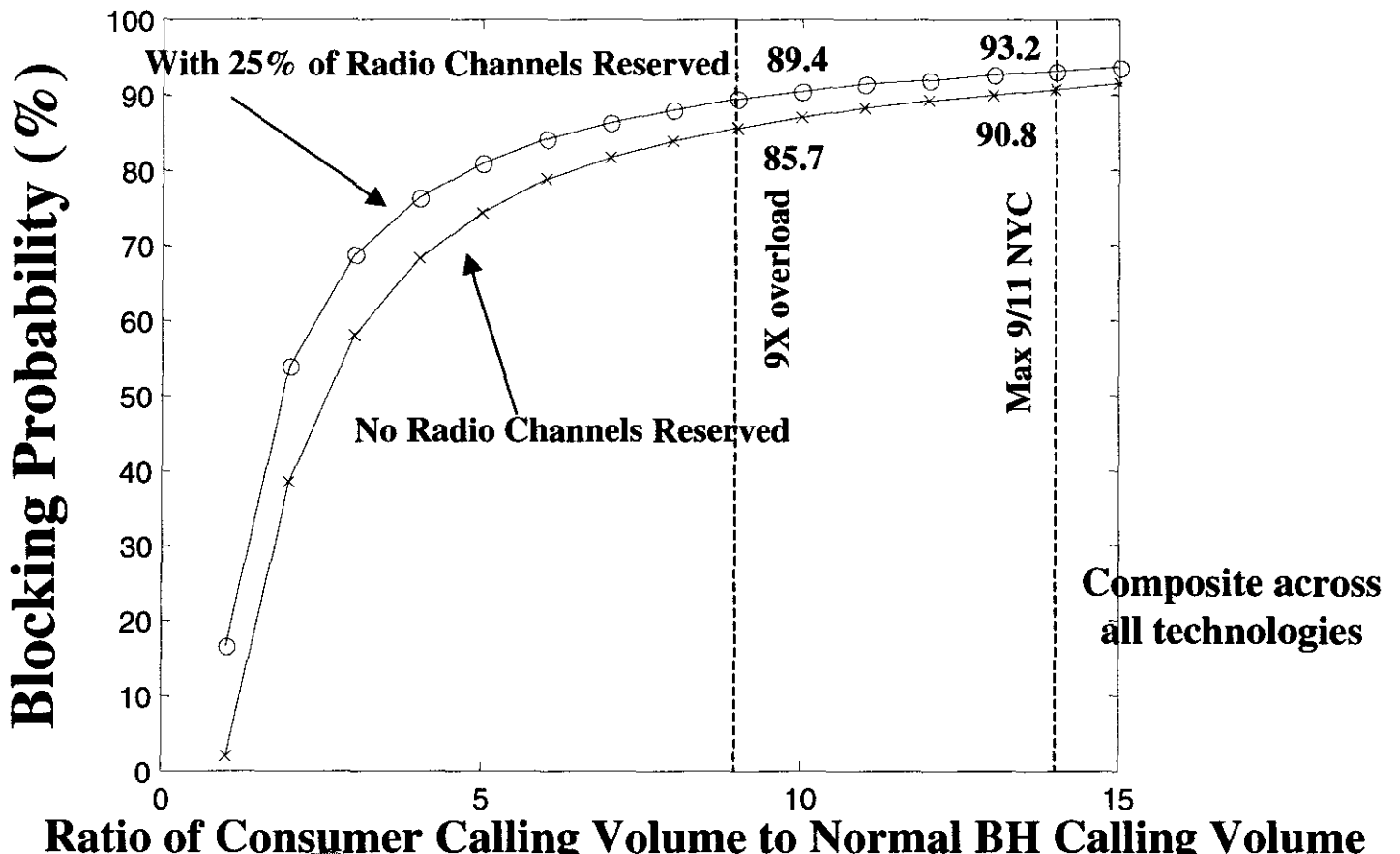
Comparison of Average Consumer Blocking Probability With and Without 25% of Radio Channels Reserved for NS/EP Users



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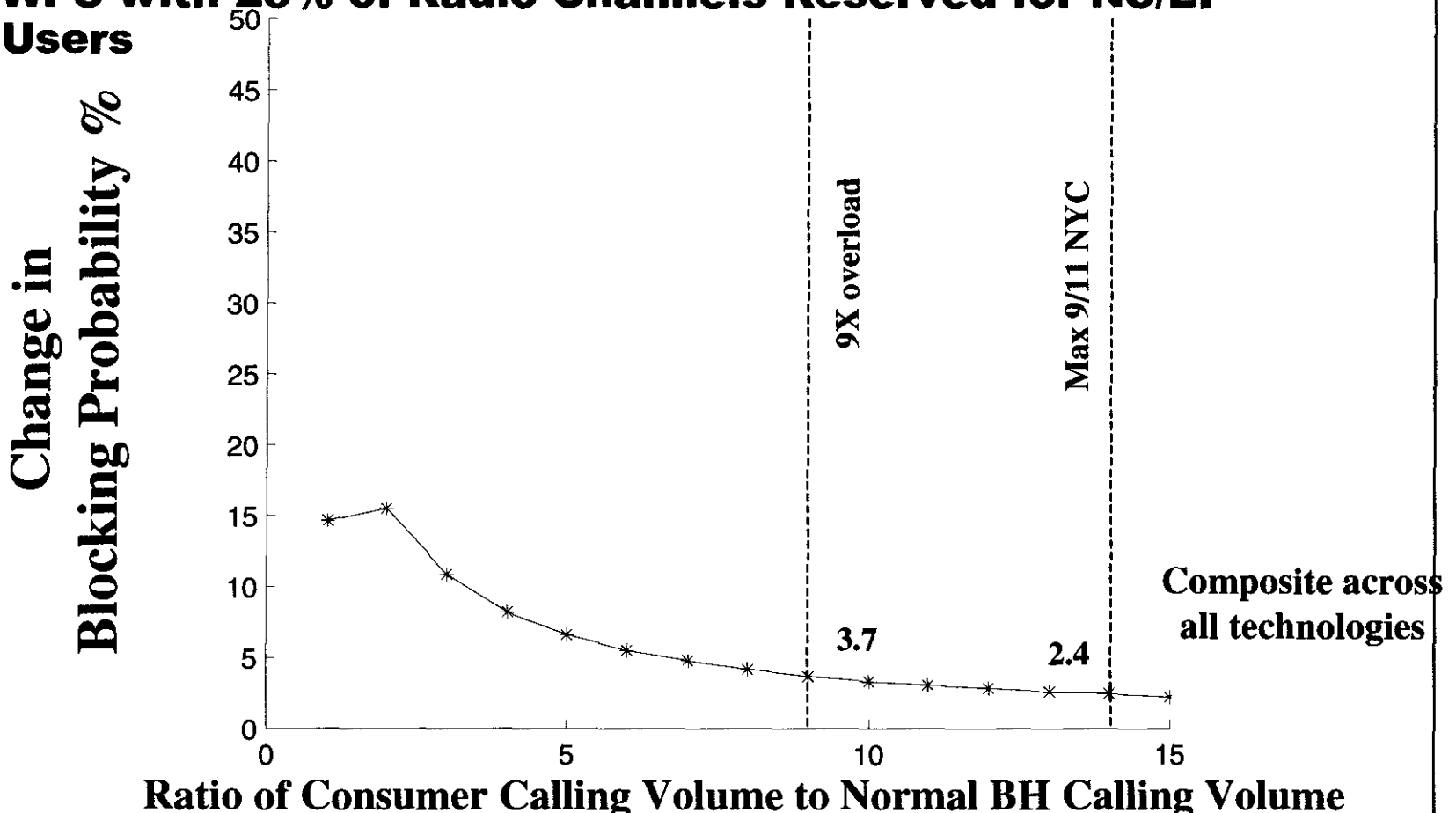
Average Change in Call Blocking for Consumers Due to WPS with 25% of Radio Channels Reserved for NS/EP Users



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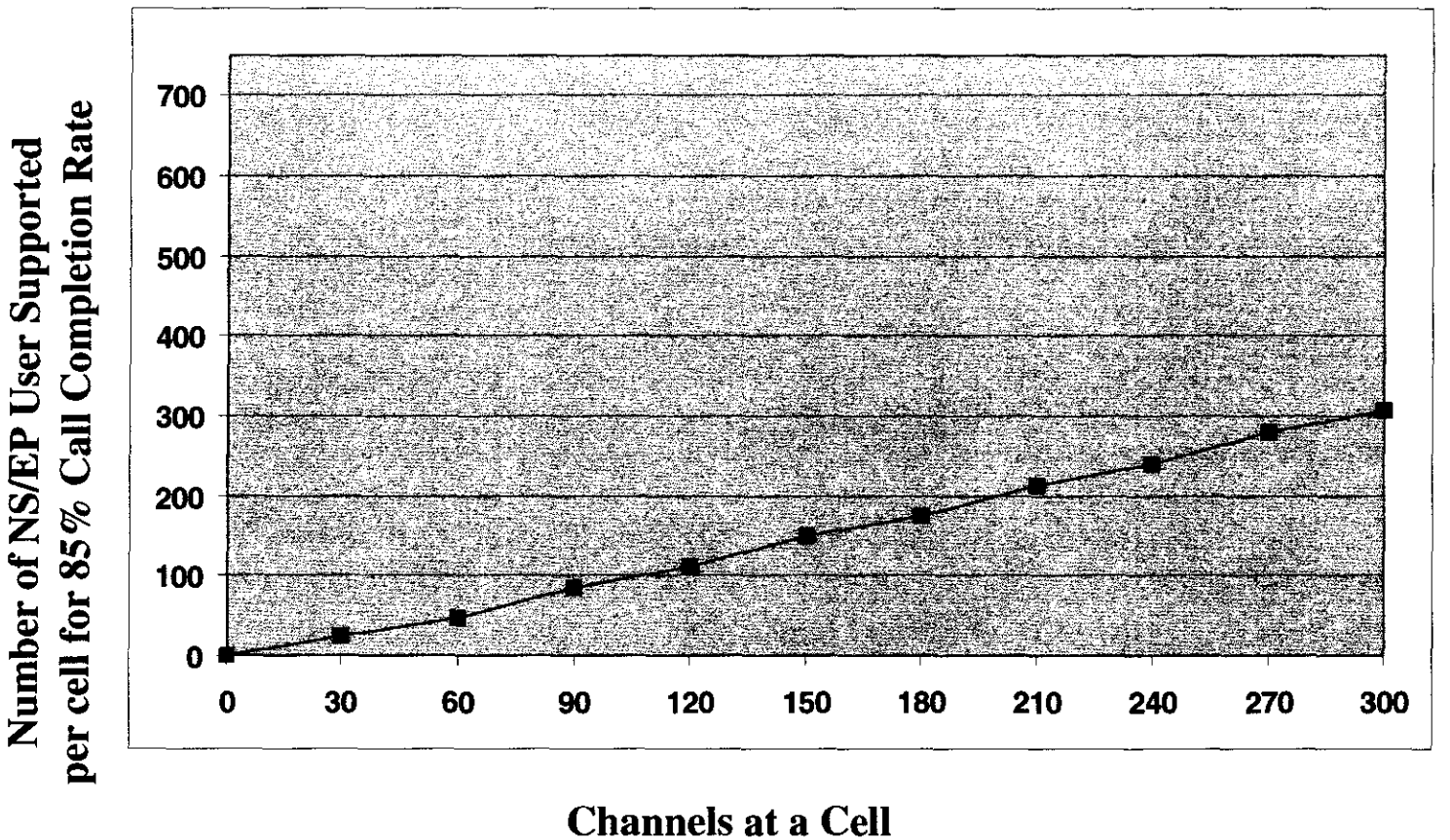
Number of NS/EP Users Supported per Cell Site at 85% Call Completion Rate with 25% of Radio Channels Reserved for NS/EP



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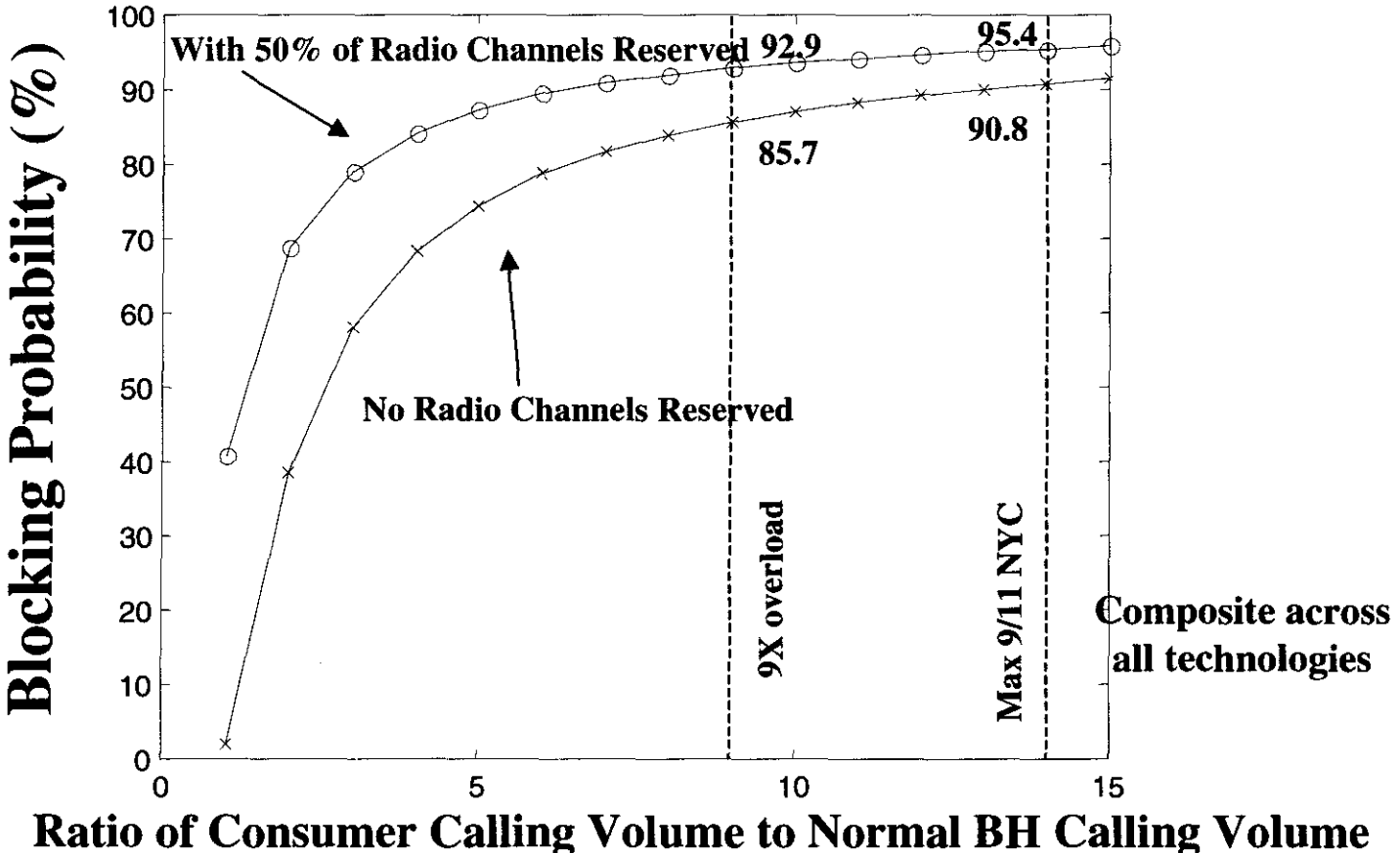
Comparison of Average Consumer Blocking Probability With and Without 50% of Radio Channels Reserved for NS/EP Users



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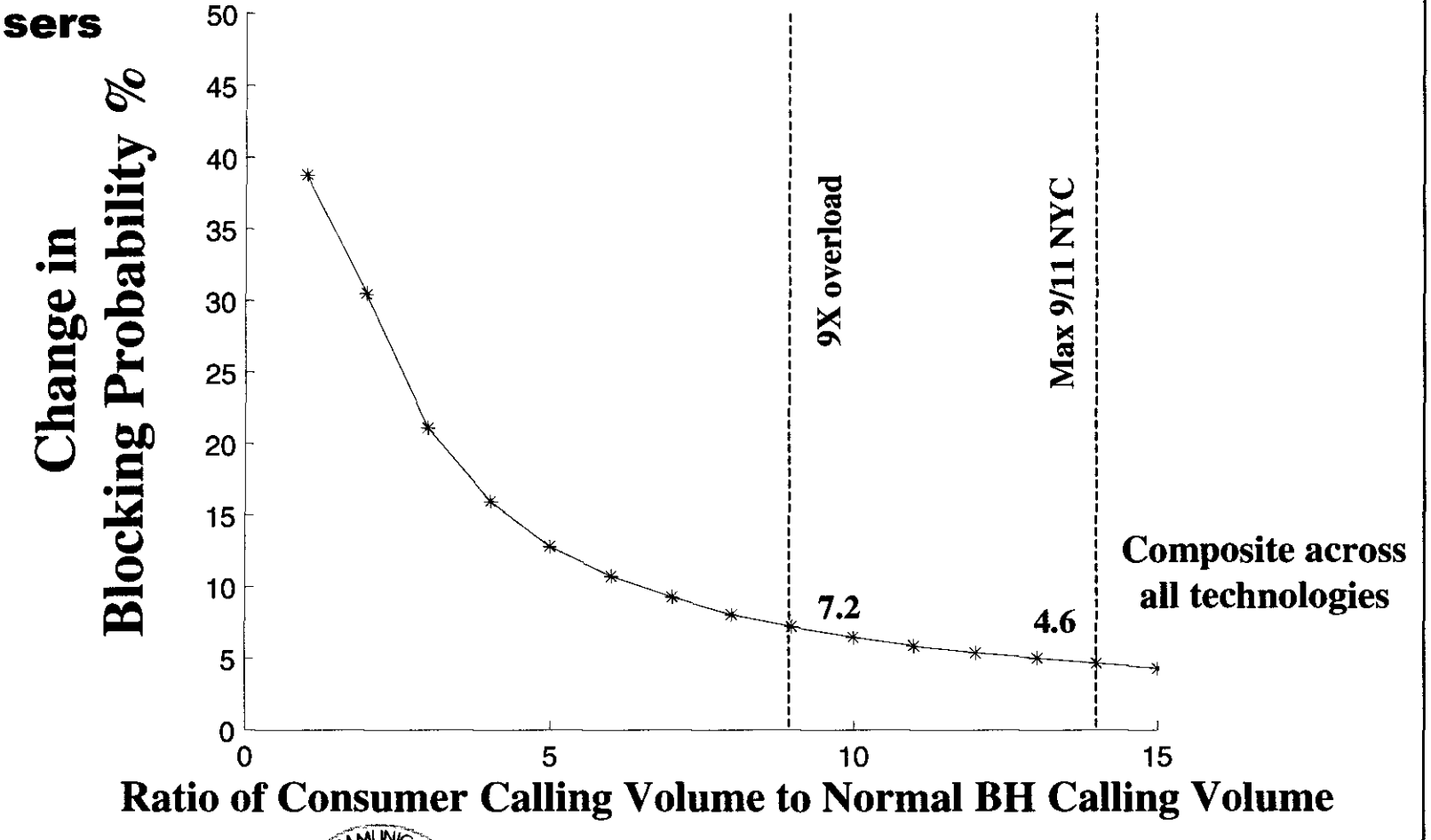
Average Change in Call Blocking for Consumers Due to WPS with 50% of Radio Channels Reserved for NS/EP Users



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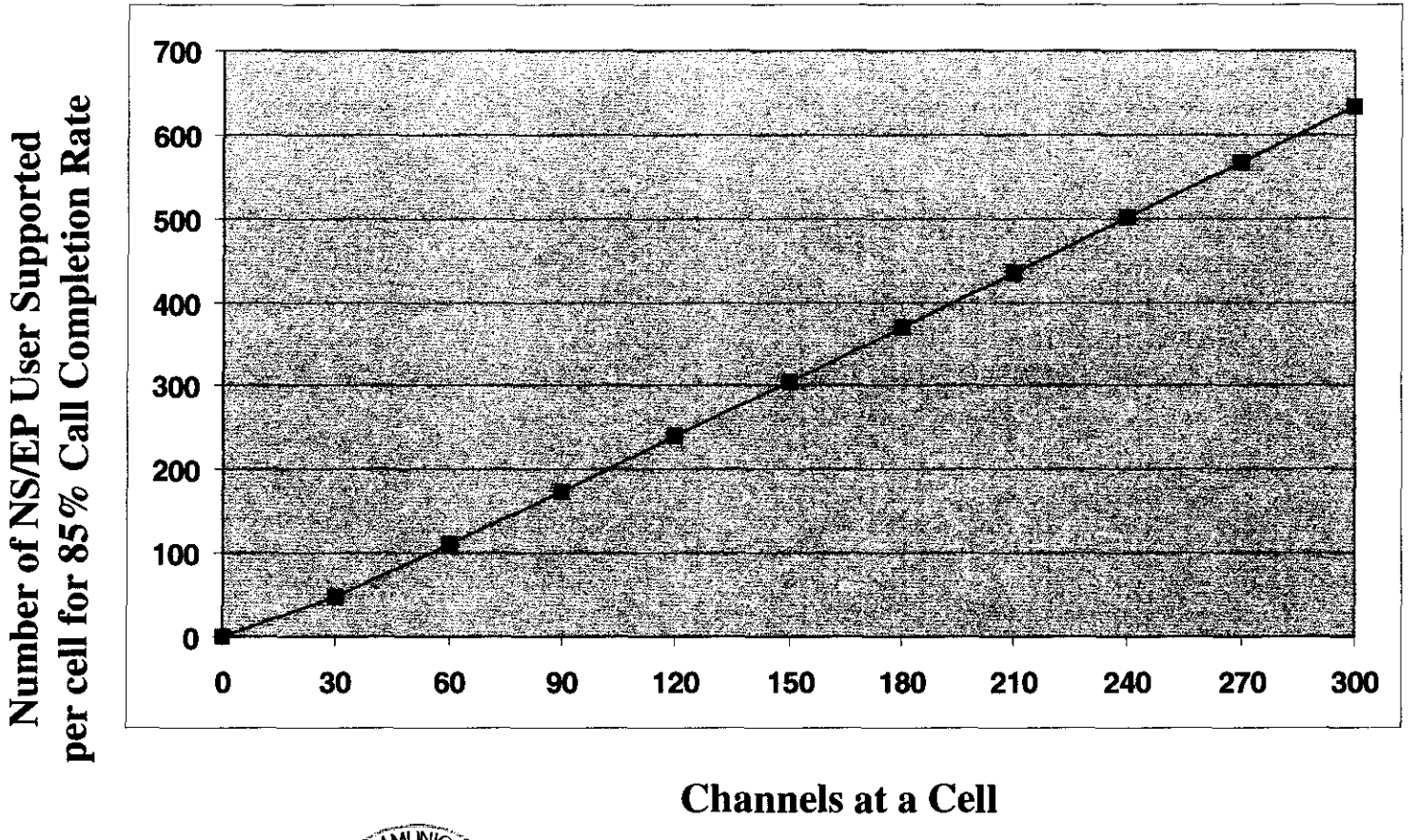
Number of NS/EP Users Supported per Cell Site at 85% Call Completion Rate with 50% of Radio Channels Reserved for NS/EP



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Estimated NS/EP Users Per Cell Site with 25% and 50% of Channels Reserved for NS/EP Users and 85% NS/EP User Call Completion Rate

REPRESENTATIVE CITIES	Avg Channels/Site	25%	50%
Large: Washington DC, NYC			
• CDMA	108-216 Channels	100-220 Users	210-450 Users
• GSM	66-160 Channels	52-155 Users	120-325 Users
• iDEN*	35-40 Channels	30-40 Users	50-70 Users
Medium: Baton Rouge			
• CDMA	54-108 Channels	45-100 Users	100-210 Users
• GSM	66 Channels	52 Users	120 Users
• iDEN*	30 Channels	24 Users	50 Users
Small: Santa Fe			
• CDMA	54 Channels	45 Users	100 Users
• GSM	66 Channels	52 Users	120 Users
• iDEN*	25 Channels	22 Users	45 Users

* Estimated subset of total capacity to interconnect

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Backup Data

Analysis Assumptions

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NS/EP Analysis Assumptions

- NS/EP Grade of Service (GOS) 85% Call Completion Rate = 15% Blocking
  - Based on GETS Past Performance during Emergencies
- Radio Channel Capacity Allocation for NS/EP Users (Part of RFP)
  - 25%
  - 50%

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Analysis Assumptions
Normal Load

- Normal Cellular Radio Engineering for Grade of Service (GOS) 98% Call Completion Rate = 2% Blocking
- Consumers (CTIA Data)
  - Average Holding Time = 150 seconds = 2.5 Minutes
  - Calling Rate = 0.44 calls/hour during busy hour
  - Average Minutes of Use during busy hour = 1.1 minutes/hour
- Cellular Network is designed to meet this load during the busy hour

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Analysis Assumptions
Emergency Load

- Consumers Calling Patterns
  - Requested Minutes of Use during emergency = 1.1X minutes/hour
    - Holding Time = 150 seconds = 2.5 Minutes
    - Calling Rate = 0.44X (X =1 to 15) calls/hour during busy hour
    - X is Times load; 1= Normal Busy Hour Load

- NS/EP Users Calling Patterns
  - Requested Minutes of Use during emergency = 14 minutes/hour
    - Holding Time = 150 seconds = 2.5 Minutes
    - Calling Rate = 5.6 calls/hour during emergency

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